REMARKS

In the above-identified Office Action Applicants' claims were rejected as being obvious primarily in view of the disclosure of the cited Lund patent. In this regard, the Examiner acknowledges at the bottom of Page 4 of the Office Action that Lund does not disclose "one or two ejections" in "one preliminary ejection operation" as claimed in each of Applicants' independent Claims 1, 15, 29, and 42. In order to overcome this deficiency of Lund as a rejecting reference the Examiner relies on the cited Smith patent as allegedly disclosing Applicants' claimed concept of one or two ejections in one preliminary ejecting operation. However, Applicants respectfully submit that Smith does not provide such a disclosure. Applicants submit also that the problems and solutions therefor of Applicants' invention are different than those set forth in the Lund and Smith references.

Applicants' Discovery of Problems
and their Solutions Therefor

As discussed in the summary of the invention commencing on Page 5 of Applicants' Specification, Applicants note that the amount of ink passing through a nozzle may be less than normal for one or two ejections after a short interval between ejections. Similarly, the concentration of ink particles or pigment may be decreased from its normal value during one or two injections after a short interval measured from the previous ejection. It is presumed that these problems may occur as a result of a film formed on the surface of the ink in the vicinity of the nozzle, and that the film may limit the volume of ink ejected as a droplet during the next one or two ejections from the nozzle, but that the droplet volume and concentration are returned to normal during subsequent ejections. In

order to preclude deleterious printing which would otherwise result from reduced volume or concentration of ink on the first one or two ejections after a short interval, Applicants' invention ejects those one or two "defective" bubbles in one preliminary ejection operation prior to a continuation of printing.

Accordingly, it will be appreciated that each of independent Claims 1, 15, 29, and, 42 specifies the problem discovered by Applicants and their solution therefor.

Lund and Smith

The Lund and Smith references do not recognize the above-described problem, nor Applicants' claimed solution. In particular, both of those references relate to subject matter described as prior art on the first four pages of Applicants' Specification; that is, methods for overcoming clogging in ink jet nozzles. For this reason it is no wonder that neither of those references disclose one or two ejections performed in one preliminary ejection operation, as acknowledged by the Examiner with respect to Lund in the last sentence on Page 4 of the Office Action. Applicants respectfully submit that this statement also applies to the disclosure of the Smith patent and that there is nothing in Column 1, lines 22-27 of Smith that would suggest one or two ejections performed in one preliminary ejection operation. Instead, that portion of Smith makes it clear that the preliminary use of the print head in Smith is for clearing viscous plugs from the nozzle and to bring the print head to a desired temperature.

For these various reasons Applicants respectfully submit that each of independent Claims 1, 15, 29, and 42 in the above-identified application are allowable over the Lund and Smith patents, and that all of the claims which depend therefrom are

allowable for the same reasons. Accordingly, the issuance of a formal Notice of Allowance is solicited.

Applicant's undersigned attorney may be reached in our New York office by telephone at (212) 218-2100. All correspondence should continue to be directed to our below listed address.

Respectfully submitted,

Attorney for Applicants

Reg. No. 24,613

FITZPATRICK, CELLA, HARPER & SCINTO
30 Rockefeller Plaza
New York, New York 10112-3801
Facsimile: (212) 218-2200

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